

### **REMARKS**

The Office Action mailed July 8, 2008, has been received and reviewed. Each of claims 1-28 stands rejected. Each of claims 1, 13, 14, and 23 have been amended as hereinabove set forth. Reconsideration of the present application in view of the above amendments and the following remarks is respectfully requested.

#### **Rejections based on 35 U.S.C. § 112**

Claim 23 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Office Action states that “[c]laim 23 points to computer readable medium and the applicant fails to disclose computer readable medium in the specification and is therefore considered vague and indefinite.” *See* Office Action dated July 8, 2008, pg. 2. It is respectfully submitted, however, that the written description provides support for a computer readable medium. For example, the Specification states that “[m]any aspects of the present invention may be implemented using computer software embodied on computer readable media to be executed by a computer or other machine.” *See, e.g.,* Specification, ¶[0127]. As such, Applicants respectfully request withdrawal of the 35 U.S.C. § 112 rejection.

#### **Rejections based on 35 U.S.C. § 101**

Claims 1-13 and 23 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In particular, the Office Action indicates that the claims are “directed towards software-per se.” *See* Office Action dated July 8, 2008, pg. 2. Applicants respectfully

submit that the following remarks and corresponding amendments overcome the rejections of claims 1-13 and 23 under 35 U.S.C. § 101 and request withdrawal of the rejections.

The United States Supreme Court has recognized that the expansive language of 35 U.S.C. § 101 includes as statutory subject matter "anything under the sun that is made by man." *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09 (1980). The USPTO has adopted the Supreme Court's interpretation and has stated that, in practice, the complete definition of the scope of 35 U.S.C. § 101 "is that any new and useful process, machine, manufacture or composition of matter under the sun that is made by man is the proper subject matter of a patent." MPEP 2106(IV)(A). More specifically, the MPEP states that "computer programs are often recited as part of a claim." MPEP 2106.01(I). In considering such claims, "USPTO personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim." *Id.*; see also *In re Beauregard*, 53 F.3d 1582 (Fed. Cir. 1995). "The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program." MPEP 2106.01(I).

Claims 1-13 are directed to a carrier virtual network interface system. Accordingly, claims 1-13 are directed to statutory subject matter. Claim 23 is directed to at least one machine readable media containing machine readable code embodied thereon. Applicants respectfully submit that a claiming strategy such as that of claim 23 has long been deemed proper. See, e.g., *In re Beauregard*, 53 F.3d 1582 (Fed. Cir. 1995). Accordingly, Applicants respectfully submit that claims 1-13 and 23 are directed to statutory subject matter, and, as such, request withdrawal of the rejection under 35 U.S.C. § 101.

**Rejections based on 35 U.S.C. § 103(a)**

A.) **Applicable Authority**

The basic requirements of a *prima facie* case of obviousness are summarized in MPEP §2143 through §2143.03. In order “[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success [in combining the references]. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)”. MPEP §2143. Further, in establishing a *prima facie* case of obviousness, the initial burden is placed on the Examiner. “To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 USPQ 972, 972, (Bd. Pat App. & Inter. 1985).” *Id.* See also MPEP §706.02(j) and §2142. Recently, the Supreme Court elaborated, at pages 13-14 of *KSR*, it will be necessary for [the Office] to look at interrelated teachings of multiple [prior art references]; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by [one of] ordinary skill in the art, all in order to determine whether there was an apparent reason to

combine the known elements in the fashion claimed by the [patent application].” *KSR v. Teleflex*, 127 S. Ct. 1727 (2007).

B.) Obviousness Rejection Based on U.S. Publication No. 2002/0004827 (“Ciscon”) in view of U.S. Publication No. 2004/0181476 (“Smith”).

Claims 1-4, 9-10, 13-15, 17, 23-24, and 26 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2002/0004827 to Ciscon et al. (hereinafter “Ciscon”), in view of U.S. Publication No. 2004/0181476 to Smith et al. (hereinafter “Smith”). Applicants respectfully traverse this rejection because the prior art does not teach or suggest each limitation of independent claims 1, 13, 14 and 23, as amended herein.

Independent claims 1, 13, 14, and 23 are directed to a carrier virtual network interface system to allow an accessing telecommunication network managed by a network management system to indirectly manage the layer one resources dedicated to a carrier virtual network. Each of claims 1, 13, 14, and 23, as amended herein, includes a network management system of an accessing telecommunication network that maintains information identifying the layer one resources of the dedicating telecommunication network dedicated to the carrier virtual network that is accessible by the accessing telecommunication network in a resource allocation record; receives a customer request to establish service; and references the resource allocation record to ascertain that the customer request can be satisfied by utilizing the layer one resources of the dedicating telecommunication network dedicated to the carrier virtual network that is accessible by the accessing telecommunication network, without engaging the network management system of the dedicating telecommunication network.

Ciscon, on the other hand, discusses a control system that includes a network monitor and a resource database. *See* Ciscon, ¶[0047]. “The network monitor 308 may be used

to monitor a network element 314, which may be interconnected with other network elements . . . using communication links 318.” *See id.* “The resource database 312 may be used to organize the functionality of the communication links 318 and the network elements 314 according to the OSI reference model.” *See id.* at ¶[0049].

Although Cisco mentions a network monitor and a resource database, it is respectfully submitted that Cisco does not disclose a network management system of an accessing telecommunication network that maintains information identifying the layer one resources of the dedicating telecommunication network dedicated to the carrier virtual network that is accessible by the accessing telecommunication network in a resource allocation record; receives a customer request to establish service; and references the resource allocation record to ascertain that the customer request can be satisfied by utilizing the layer one resources of the dedicating telecommunication network dedicated to the carrier virtual network that is accessible by the accessing telecommunication network, without engaging the network management system of the dedicating telecommunication network, as recited in independent claims 1, 13, 14, and 23. Rather, Cisco merely mentions a network monitor that monitors a network element. Such a network monitor does not *maintain information that identifies layer one resources dedicated to a carrier virtual network accessible by another telecommunication network in a resource allocation record or ascertain that a customer request can be fulfilled using layer one resources of another telecommunication network without engaging another network management system.* Further, the resource database of Cisco that organizes functionality of communication links and network elements according to an OSI reference model is in stark contrast to the network management system or resource allocation record of claims 1, 13, 14, and 23 that identifies layer one resources dedicated to a carrier virtual network and ascertains a customer request for service.

In addition, Smith fails to overcome the deficiencies of Ciscen. Smith discusses provisioning servers. *See* Smith at ¶ [0079]. While Smith mentions provisioning, Smith fails to teach or suggest a network management system of an accessing telecommunication network that maintains information identifying the layer one resources of the dedicating telecommunication network dedicated to the carrier virtual network that is accessible by the accessing telecommunication network in a resource allocation record; receives a customer request to establish service; and references the resource allocation record to ascertain that the customer request can be satisfied by utilizing the layer one resources of the dedicating telecommunication network dedicated to the carrier virtual network that is accessible by the accessing telecommunication network, without engaging the network management system of the dedicating telecommunication network, as recited in independent claims 1, 13, 14, and 23.

Further, neither the Ciscen nor the Smith reference teach or suggest dedicated layer one resources of a dedicating telecommunication network that are *freely accessible to an accessing telecommunication network* such that *a network management system of the accessing telecommunication network can provision the dedicated layer one resources as if part of the accessing telecommunication network*, as recited in independent claims 1, 13, 14, and 23. By contrast, Ciscen discusses a control system that is “capable of recognizing that communication resources . . . may be shared or exclusive. Accordingly, the network monitor . . . correlates the information of the various communication links . . . and presents it to the resource database . . . in a logical manner. For example, the network monitor . . . may need to combine information from communication resources at multiple OSI layers or combine information from communication resources in the same OS layer.” *See* Ciscen, at ¶ [0050].

While Ciscen mentions recognizing that communication resources may be shared, it is respectfully submitted that Ciscen does not disclose dedicated layer one resources of a dedicating telecommunication network that are *freely accessible to an accessing telecommunication network* such that a *network management system of the accessing telecommunication network* can *provision the dedicated layer one resources as if part of the accessing telecommunication network*, as recited in independent claims 1, 13, 14, and 23. Rather, Ciscen merely mentions that a control system is capable of recognizing that communication resources may be shared. Recognizing that communication resources may be shared, however, does not teach or suggest dedicated layer one resources of a dedicating telecommunication network that are freely accessible to an accessing telecommunication network such that a network management system of the accessing telecommunication network can provision the dedicated layer one resources as if part of the accessing telecommunication network.

The Office Action mentions that “Ciscen et al disclosed on how it can access resources/layer-1 devices across different networks, as Ciscen et al’s network controller may create network provisioning by addition of an additional circuit or path, which is layer-1 resource/device.” *See* Office Action dated July 8, 2008, pg. 16. In addition, the Office Action indicates that Ciscen shows “how the access can be shared or made for exclusive use only [0050], [0057] in the network.” *See id.* at pg. 27. It is respectfully submitted, however, that Ciscen does not discuss one telecommunication network providing layer one resources that are freely accessible to another telecommunication network. Rather, in Ciscen, the control system is capable of recognizing that communication resources can be shared. *See* Ciscen, ¶[0050]. In Ciscen, because the communication resources can be shared or exclusive, “the network monitor

308 correlates the information of the various communication links 318 and presents it to the resource database 312 in a logical manner.” *See id.* The resource database is used to “organize the functionality of the communication links 318 and the network elements 314 according to the OSI reference model.” *See id.* at ¶[0049]. The sharing of communication resources with respect to network elements or OSI layers, as in Ciscen, is in stark contrast to providing a telecommunication network with access to another telecommunication network’s layer one resources, as recited in independent claims 1, 13, 14, and 23.

Further, Smith fails to overcome the deficiencies of Ciscen. Smith discusses provisioning servers. *See* Smith at ¶ [0079]. While Smith mentions provisioning, Smith fails to teach or suggest dedicating telecommunication network that are *freely accessible to an accessing telecommunication network* such that a *network management system of the accessing telecommunication network can provision the dedicated layer one resources as if part of the accessing telecommunication network*, as recited in independent claims 1, 13, 14, and 23.

Accordingly, Ciscen and Smith, individually and in combination, fail to teach or suggest all the limitations of independent claims 1, 13, 14, and 23, as amended herein. Accordingly, for at least the reasons set forth above, the obviousness rejection of claims 1, 13, 14, and 23 should be withdrawn.

Dependent claims 2-4, 9-10, 15, 17, 24, and 26 further define novel features of the claimed embodiments and each depend either directly or indirectly, from one of the independent claims 1, 13, 14, and 23. Accordingly, for at least the reasons set forth above with respect to amended independent claims 1, 13, 14, and 23, dependent claims 2-4, 9-10, 15, 17, 24, and 26 are believed to be in condition for allowance by virtue of their dependency. *See, In re Fine*, 5



USPQ2d 1596, 1600 (Fed. Cir. 1988); *see also*, MPEP § 2143.01. As such, withdrawal of the obviousness rejection of dependent claims 2-4, 9-10, 15, 17, 24, and 26 is respectfully requested.

C.) Obviousness Rejection Based on U.S. Publication No. 2002/0004827 (“Ciscon”) in view of U.S. Publication No. 2004/0181476 (“Smith”) in further view of U.S. Publication No. 2006/0248205 (“Randle”).

Claims 5, 6, 11-12, 18-19, 21-22, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2002/0004827 to Ciscon et al. (hereinafter “Ciscon”), in view of U.S. Publication No. 2004/0181476 to Smith et al. (hereinafter “Smith”), in further view of U.S. Publication No. 2006/0248205 to Randle et al. (hereinafter “Randle”). Applicants submit that a *prima facie* case of obviousness for the rejection of claims 5, 6, 11-12, 18-19, 21-22, 27, and 28 under § 103 (a) has not been established.

As Ciscon, Smith, or Randle, either alone or in combination, fail to teach or suggest all of the claimed features of claims 5, 6, 11-12, 18-19, 21-22, 27, and 28, Applicants traverse the rejection. As discussed above, the Ciscon and Smith references fail to teach or suggest all of the claimed features of the rejected independent claims 1, 13, 14, and 23 from which claims 5, 6, 11-12, 18-19, 21-22, 27, and 28 depend.

In addition, Randle also fails to teach or suggest all of the claimed features of the rejected independent claims from which 5, 6, 11-12, 18-19, 21-22, 27, and 28 depend. Although Randle discusses a secure service network, the Randle reference does not teach or suggest dedicating telecommunication network that are *freely accessible to an accessing telecommunication network* such that a *network management system of the accessing telecommunication network can provision the dedicated layer one resources as if part of the accessing telecommunication network*. Rather, the Randle reference discusses a secure service

network. In addition, Randle fails to teach or suggest a network management system of an accessing telecommunication network that maintains information identifying the layer one resources of the dedicating telecommunication network dedicated to the carrier virtual network that is accessible by the accessing telecommunication network in a resource allocation record; receives a customer request to establish service; and references the resource allocation record to ascertain that the customer request can be satisfied by utilizing the layer one resources of the dedicating telecommunication network dedicated to the carrier virtual network that is accessible by the accessing telecommunication network, without engaging the network management system of the dedicating telecommunication network. Accordingly, withdrawal of the 35 U.S.C. § 103 rejection of claims 5, 6, 11-12, 18-19, 21-22, 27, and 28 is respectfully requested. Claims 5, 6, 11-12, 18-19, 21-22, 27, and 28 are believed to be in condition for allowance and such favorable action is requested.

D.) Obviousness Rejection Based on U.S. Publication No. 2002/0004827 ("Ciscon") in view of U.S. Publication No. 2004/0181476 ("Smith") in further view of U.S. Publication No. 2002/0174207 ("Battou").

Claims 7-8, 16, 20, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2002/0004827 to Ciscon et al. (hereinafter "Ciscon"), in view of U.S. Publication No. 2004/0181476 to Smith et al. (hereinafter "Smith"), in further view of U.S. Publication No. 2002/0174207 to Battou (hereinafter "Battou"). Applicants submit that a *prima facie* case of obviousness for the rejection of claims 7-8, 16, 20, and 25 under § 103 (a) has not been established.

As Ciscon, Smith, or Battou, either alone or in combination, fail to teach or suggest all of the claimed features of claims 7-8, 16, 20, and 25, Applicants traverse the

rejection. As discussed above, the Ciscron and Smith references fail to teach or suggest all of the claimed features of the rejected independent claims 1, 13, 14, and 23 from which claims 7-8, 16, 20, and 25 depend.

In addition, Battou also fails to teach or suggest all of the claimed features of the rejected independent claims from which claims 7-8, 16, 20, and 25 depend. Although Battou discusses a hierarchical network management system, the Battou reference does not teach or suggest dedicating telecommunication network that are *freely accessible to an accessing telecommunication network* such that a *network management system of the accessing telecommunication network can provision the dedicated layer one resources as if part of the accessing telecommunication network*. Rather, the Battou reference merely discusses a hierarchical network management system. In addition, Randle fails to teach or suggest a network management system of an accessing telecommunication network that maintains information identifying the layer one resources of the dedicating telecommunication network dedicated to the carrier virtual network that is accessible by the accessing telecommunication network in a resource allocation record; receives a customer request to establish service; and references the resource allocation record to ascertain that the customer request can be satisfied by utilizing the layer one resources of the dedicating telecommunication network dedicated to the carrier virtual network that is accessible by the accessing telecommunication network, without engaging the network management system of the dedicating telecommunication network. Accordingly, withdrawal of the 35 U.S.C. § 103 rejection of claims 7-8, 16, 20, and 25 is respectfully requested. Claims 7-8, 16, 20, and 25 are believed to be in condition for allowance and such favorable action is requested.

**CONCLUSION**

For at least the reasons stated above, claims 1-28 are now in condition for allowance. Applicants respectfully request withdrawal of the pending rejections and allowance of the claims. If any issues remain that would prevent issuance of this application, the Examiner is urged to contact the undersigned – 816-474-6550 or [kfeimster@shb.com](mailto:kfeimster@shb.com) (such communication via email is herein expressly granted) – to resolve the same. It is believed that no fee is due, however, the Commissioner is hereby authorized to charge any amount required to Deposit Account No. 21-0765.

Respectfully submitted,

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